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(54) Title: MONOCLONAL ANTIBODY INHIBITOR OF GM-CSF, IL-3, IL-5 AND OTHER CYTOKINES, AND USES THEREOF

(57) Abstract

A method of isolating a monoclonal antibody capable of inhibiting any one of IL-3, GM-CSF and IL-5 binding to the common receptor  $\beta_c$ , or a monoclonal antibody capable of inhibiting the cytokines binding to a receptor analogous to  $\beta_c$ . The method includes the steps of immunising an animal with a cytokine receptor or portion of a cytokine containing the critical binding site which portion includes the extracellular domain 4 or analogous domain in the analogous common receptor or part thereof. Antibodies producing cells from the animal are then isolated and fused with a myeloma cell line and then screened for a cell line that produces an antibody of the desired type. A monoclonal antibody, or fragments thereof capable of inhibiting the binding of the cytokines IL-3, GM-CSF and IL-5 to the  $\beta_c$  receptor, and a hybridoma cell line producing the antibody are also claimed.